Fujitsu recommends Windows® 7.

# Data Sheet
# Fujitsu ESPRIMO P400 E85+ Desktop PC

## Your Immediately Available Office PC

Fujitsu All-round ESPRIMO PCs deliver high-quality computing for your office applications and projects at a very attractive price point. You can choose cost-optimized fixed configurations for immediate delivery. Alternatively, you can use configuration options to meet your specific hardware needs, while staying within your budget.

**Intelligent performance**
The ideal PC for the day-to-day challenges of office life
- 3rd generation Intel® Core™ i3, Core™ i5, and Core™ i7 processors

**Designed and engineered in Germany**
Outstanding quality and stable functions based on German production standards
- The development, production and function tests are all under one roof in Germany

**Immediate availability**
Cost-effective professional PC for price-driven project needs
- Fast availability and adapted to constantly changing customer and market requirements

**Meets ENERGY STAR® requirements**
Low power consumption and low costs, without any loss in performance
- Up to 86% energy efficient power supply

Fujitsu recommends Windows® 7.

# Components

| | |
|---|---|
| **Processor** | Intel® Core™ i7-3770 processor (4 Cores / 8 Threads, 3.40 GHz, up to 3.9 GHz, 8 MB, Intel® HD Graphics 4000) * |
| | Intel® Core™ i5-3470 processor (4 Cores / 4 Threads, 3.20 GHz, up to 3.6 GHz, 6 MB, Intel® HD Graphics 2500) * |
| | Intel® Core™ i5-2400 processor (4 Cores / 4 Threads, 3.10 GHz, 6 MB, Intel® HD Graphics 2000) |
| | Intel® Core™ i5-2320 processor (4 Cores / 4 Threads, 3.00 GHz, 6 MB, Intel® HD Graphics 2000) |
| | Intel® Core™ i3-3220 processor (2 Cores / 4 Threads, 3.30 GHz, 3 MB, Intel® HD Graphics 2500) |
| | Intel® Core™ i3-2130 processor (2 Cores / 4 Threads, 3.40 GHz, 3 MB, Intel® HD Graphics 2000) |
| | Intel® Core™ i3-2120 processor (2 Cores / 4 Threads, 3.30 GHz, 3 MB, Intel® HD Graphics 2000) |
| | Intel® Pentium® processor G860 (2 Cores / 2 Threads, 3.00 GHz, 3 MB, Intel® HD Graphics) |
| | Intel® Pentium® processor G850 (2 Cores / 2 Threads, 2.90 GHz, 3 MB, Intel® HD Graphics) |
| | Intel® Pentium® processor G645 (2 Cores / 2 Threads, 2.90 GHz, 3 MB, Intel® HD Graphics) |
| | Intel® Pentium® processor G640 (2 Cores / 2 Threads, 2.80 GHz, 3 MB, Intel® HD Graphics) |
| | Intel® Celeron® processor G550 (2 Cores / 2 Threads, 2.60 GHz, 2 MB, Intel® HD Graphics) |
| | Intel® Celeron® processor G540 (2 Cores / 2 Threads, 2.50 GHz, 2 MB, Intel® HD Graphics) |
| | *with Intel® Turbo Boost Technology (clock speed and performance will vary depending on workload and other variables) |
| **Operating systems** | |
| **Operating system** | Windows® 7 Home Basic (EM) 32-bit<br>Windows® 7 Home Premium 64-bit<br>Windows® 7 Professional 32-bit<br>Windows® 7 Professional 64-bit |
| **Operating system compatible** | openSUSE Linux<br>Windows Vista® (3rd gen Intel® Core™ processors are not supported)<br>Windows® XP |
| **Operating system notes** | Limited Windows® XP support. Microsoft discontinued Windows® XP certification on system level, basic drivers via http://support.ts.fujitsu.com |
| **Hard disk drives (internal)** | SSD SATA III, 256 GB, 2.5-inch |
| | SSD SATA III, 128 GB, 2.5-inch, SED |
| | SSD SATA III, 128 GB, 2.5-inch |
| | HDD SATA III, 7200 rpm, 2000 GB, 3.5-inch |
| | HDD SATA III, 7200 rpm, 1000 GB, 3.5-inch |
| | HDD SATA III, 7200 rpm, 500 GB, 3.5-inch |
| **Hard disk notes** | Up to 18 GB of HDD space is reserved for system recovery |
| **Graphics add on cards (optional)** | NVIDIA® GeForce® GT630 DisplayPort 2GB FH, 2 GB |
| | NVIDIA® GeForce® 605 DisplayPort 1GB FH, 1 GB |
| | DP to DVI-D (single link) Adapter Cable |
| | ATI Radeon® HD7350 1GB FH, 1 GB |
| **Drives (optional)** | BD Triple Writer SATA slim (tray) |
| | Blu-ray Disc™ Triple Writer |
| | DVD-ROM |
| | DVD Super Multi |
| | MultiCard Reader 24in1 USB 2.0 3.5" |
| **Interface add on cards/components (optional)** | |
| | Gigabit Ethernet PCIe x1, DS |
| | Dual serial card PCIe x1, powered |
| | Dual serial card PCIe x1 |
| **Base unit** | ESPRIMO P400 E85+ |

| | |
|---|---|
| **Mainboard** | |
| Mainboard type | D2990 |
| Formfactor | µATX |
| Chipset | Intel® H61 |
| Processor socket | LGA 1155 |
| Processor quantity maximum | 1 |
| Memory slots | 2 DIMM (DDR3) |
| Supported capacity RAM (max.) | 8 GB |
| Memory frequency | 1333 MHz |
| Memory notes | Dual channel support.<br>For dual channel performance, identical memory modules in each channel are necessary (minimum 2 modules). |
| LAN | 10/100/1000 MBit/s Realtek RTL 8111E |
| BIOS version | AMI Aptio 4.6 |
| BIOS features | BIOS Flash EPROM update by software<br>Recovery BIOS<br>Unified Extensible Firmware Interface (UEFI) |
| Audio codec | Realtek ALC663 |
| Audio features | High Definition Audio |
| **I/O controller on board** | |
| Serial ATA total | 4 |
| Controller functions | Serial ATA II (3 Gbit)<br>NCQ<br>AHCI |
| **Interfaces** | |
| Audio: line-in | 1 |
| Audio: line-in / microphone | 1 |
| Audio: line-out | 1 |
| Front audio: microphone | 1 |
| Front audio: headphone | 1 |
| USB 2.0 total | 8 |
| USB 3.0 total | optional |
| USB front | 2 |
| USB rear | 4 |
| USB internal | 2 |
| VGA | 1 |
| DVI | 1 (DVI-D) |
| Mouse / Keyboard (PS/2) | 2 |
| Ethernet (RJ-45) | 1 |
| **Input device / components** | |
| | Optical USB wheel mouse |
| **Drive bays** | |
| Drive bays total | 5 |
| 3.5-inch internal bays | 2 |
| 3.5-inch external bays | 1 |
| 5.25-inch external bays | 2 |
| **Slots** | |
| PCI-Express 2.0 x16 | 1 x (210 mm / 8.27 inch) Full height |
| PCI-Express x1 | 2 x (190 mm / 7.48 inch) Full height |
| **Graphics on board** | |
| Graphics brand name | Intel® HD Graphics, HD Graphics 2000, HD Graphics 2500, HD Graphics 4000 (depending on CPU) |
| Shared video memory | up to 1759 MB |

| | |
|---|---|
| **Graphics on board** | |
| **TFT resolution (VGA)** | 1024 x 768 pixel<br>1280 x 1024 pixel<br>1360 x 768 pixel<br>1440 x 900 pixel<br>1600 x 900 pixel<br>1600 x 1200 pixel<br>1680 x 1050 pixel<br>1920 x 1080 pixel<br>1920 x 1200 pixel |
| **TFT resolution (DVI)** | 1360 x 768 pixel<br>1440 x 900 pixel<br>1600 x 900 pixel<br>1680 x 1050 pixel<br>1920 x 1080 pixel<br>1920 x 1200 pixel |
| **Graphics features** | Dual display support<br>DirectX® 10.1 or DirectX® 11 (depending on CPU)<br>HDCP support<br>Open GL® 3.3 (depending on CPU)<br>Open CL™ 1.1 (depending on CPU) |
| **Graphics notes** | Tested resolutions, depending on display type additional resolutions and frequencies possible<br>Shared memory depending on main memory size and operating system<br>Resolution (color depth up to 32 Bit/pixel)<br>For TFT we recommend using 60Hz |
| **Electrical values** | |
| **Power efficiency note** | power supply efficiency (at 230V; 20% / 50% / 100% load) : 83% / 86% / 85% |
| | 0-Watt mode with hard-off switch |
| **Rated voltage range** | 100 V - 240 V |
| **Rated frequency range** | 50 Hz - 60 Hz |
| **Operating voltage range** | 90 V - 264 V |
| **Operating line frequency range** | 47 Hz - 63 Hz |
| **Max. output of single power supply** | 330 W |
| **Power factor correction/active power** | active |
| **Monitor outlet** | No |
| **Power consumption** | |
| **Power consumption note** | See white paper Energy Consumption<br>0-Watt mode with hard-off switch |
| **Link to Energy White Paper** | http://docs.ts.fujitsu.com/dl.aspx?id=9bec4b1c-40db-4205-bac7-5c712c4dbed8 |
| **Heat dissipation** | |
| **Heat dissipation notes** | See white paper Energy Consumption |
| **Noise for standard configuration (HDD, ODD)** | |
| **Noise emission** | According to ISO9296 |
| **Related Processors for noise** | Intel® Core™ i5 2400 |
| **Noise Operation mode 1: ODD load (Blue angel requirement)** | 5.0 B/ 36 dB(A) |
| **Noise Operation mode 2: HDD load (Blue angel requirement)** | 3.7 B/ 23 dB(A) |
| **Noise Operation mode 3: CPU 90% load (Blue angel requirement)** | 3.9 B/ 27 dB(A) |
| **Noise Operation mode 4: High load** | 4.2 B/ 27 dB(A) |
| **Noise Operation mode 5: Office applications 2.0** | 3.7 B/ 22 dB(A) |
| **Idle mode (Blue Angel requirement)** | 3.7 B/ 22 dB(A) |

| | |
|---|---|
| **Noise for standard configuration (HDD, ODD)** | |
| **Noise notes / description** | A weighted sound power level Lwad (in B) / workplace related A-weighted sound pressure level LpAm (in dB(A)), Bystander position |
| **Dimensions / Weight / Environmental** | |
| **Dimensions (W x D x H)** | 175 x 425 x 353 mm<br>6.89 x 16.74 x 13.9 inch |
| **Operating position** | Vertical |
| **Weight** | 9 kg |
| **Weight (lbs)** | 20.22 lbs |
| **Weight notes** | Actual weight may vary depending on configuration |
| **Operating ambient temperature** | 10 - 35°C (50 - 95°F) |
| **Compliance** | |
| **Product** | ESPRIMO P400 |
| **Model** | MI4W-2990 |
| **Europe** | CE |
| **Global** | RoHS (Restriction of hazardous substances)<br>WEEE (Waste electrical and electronic equipment)<br>Microsoft Operating Systems (HCT / HCL entry / WHQL)<br>ENERGY STAR® 5.0<br>EPEAT® Gold (dedicated regions) |
| **Compliance link** | https://sp.ts.fujitsu.com/sites/certificates/ |
| **Additional Software** | |
| **Additional software (preinstalled)** | Nero Essentials S (burning software)<br>Fujitsu Recovery (Hard Disk Based Recovery)<br>Norton Internet Security (incl. Firewall) 60 days version<br>Microsoft® Office Starter: reduced-functionality Word and Excel® only, with advertising. No PowerPoint® or Outlook®. Buy Office 2010 to use the full-featured software. |
| **Additional software (optional)** | Recovery DVD for Windows®<br>Drivers & Utilities DVD (DUDVD)<br>CyberLink PowerDVD BD (playback software for Blu-ray Disc™, only with Blu-ray Disc™ drive / Blu-ray playback is not supported under Windows XP if the system runs on Intel onboard graphics) |
| **Miscellaneous** | |
| **Compatibility (references)** | |
| | DMI 2.0<br>PC 2001<br>WMI 1.5<br>USB 2.0<br>SMBIOS |
| **Manageability** | |
| **Manageability technology** | DeskUpdate Driver management<br>PXE 2.1 Boot code<br>Wake up from S5 (off mode)<br>WoL (Wake on LAN) |
| **Security** | |
| **System protection** | Kensington Lock support<br>Eye for padlock |
| **Audit proof protection** | Boot sector virus protection<br>Control of external interfaces |
| **Access protection** | User and supervisor BIOS password<br>Optional: Access protection via external SmartCard reader |
| **Packaging information** | |
| **Packaging dimension (mm)** | 500 x 290 x 540 mm |
| **Packaging dimension (inch)** | 19.69 x 11.42 x 21.26 inch |

| Packaging information | |
|---|---|
| Max. quantity / pallet | 24 |
| Material - Weight (g) Carton | 1270 g |
| Material - Weight (lbs) Carton | 2.8 lbs |
| Material - Weight (g) EPS / PS | 160 g |
| Material - Weight (lbs) EPS / PS | 0.35 lbs |
| Material - Weight (g) PE | 60 g |
| Material - Weight (lbs) PE | 0.13 lbs |
| Packaging notes | printed user documentation is bleached in chlorine free process |

| Warranty | |
|---|---|
| Standard Warranty | 1 year |
| Service level | Bring-In / On-Site Service (depending on country) |
| Maintenance and Support Services - the perfect extension | |
| Recommended Service | 5x9, Response Time: Next Business Day |
| Spare Parts availability | 3 years |
| Service Weblink | http://www.fujitsu.com/fts/services/support/index.html |

# Recommended Accessories

| | | | |
|---|---|---|---|
| Wireless Keyboard Set LX900 | | The Wireless Keyboard LX900 is a top of the line desktop solution for lifestyle orientated customers, who want only the best for their desk. This superb keyboard set with offers ambitious users more functions, security and better features than a conventional interface device. It even includes 2.4 GHz technology and 128 AES encryption for security. | S26381-K564-L4** (**: Country specific variation) |
| Keyboard KBPC PX ECO | | Fujitsu's KBPC PX ECO keyboard is the perfect contribution to Green IT. The keyboard is made out of 45% renewable raw material and comes with a PVC free USB cable. In addition, the KBPC PX ECO offers first class comfort and ergonomics. It attracts attention with its impressive modern design and useful extras. | S26381-K341-L1** (**: country specific variation) |
| Keyboard KB900 | | The KB900 is a very flat keyboard with extra low keys and spill-resistant protection. The elegant design and top-quality construction makes the KB900 the ideal input device for any PC or Notebook user. If you accidently spill some water or coffee onto the keyboard, this special construction helps the liquid to flow away. | S26381-K560-L4** (**: Country specific variation) |
| SOUNDSYSTEM DS E2000 Air | | The new more powerful SOUNDSYSTEM DS E2000 Air gives you impressive, well-balanced sound throughout the frequency band. It is an unbeatable USB speaker set with a surprisingly small form factor. The robust satellite speakers are decorated with a deluxe piano finish and the base is adorned with warm ambient lighting. | Order Code: S26391-F7128-L600 |
| WebCam 130 HD2 | | With the most advanced HD (High Definition / 720p) recording feature and widescreen video format (16:9 and 16:10), WebCam 130 HD2 can capture up to 30 frame rate per second, close up to HD/720p quality video. Even more: 1-Click-Upload makes the video uploading to YouTube in a snap! With smart clip for notebook & LCD display it is easy to install on any device you want. | Order Code: S26391-F7136-L5 |

**HS E2000 Communicator Headset**

The Fujitsu HS E2000 Communicator headset allows you to use your personal computer for Voice over IP (VoIP) in stereo audio quality. This premium headset is designed to provide superb audio quality and comfort for the telephony, internet chat, speech recognition, video conferencing and multimedia applications.

Order Code:
S26391-F7139-L5

**CELVIN® Drive D100**

The CELVIN® Drive D100 is a highly reliable external storage device with a standard USB-interface for easy Plug & Play use with a notebook or PC. It is also easy to set up additional home network capacity by connecting it with dedicated routers or NAS devices.

Order Code:
S26341-F103-L118

Fujitsu recommends Windows® 7.

# More information

## Fujitsu OPTIMIZATION Services

In addition to Fujitsu ESPRIMO P400 E85+, Fujitsu provides a range of platform solutions. They combine reliable Fujitsu products with the best in services, know-how and worldwide partnerships.

**Fujitsu Portfolio**
Build on industry standards, Fujitsu offers a full portfolio of IT hardware and software products, services, solutions and cloud offering, ranging from clients to datacenter solutions and includes the broad stack of Business Solutions, as well as the full stack of Cloud offering. This allows customers to leverage from alternative sourcing and delivery models to increase their business agility and to improve their IT operation's reliability.

**Computing Products**
www.fujitsu.com/global/services/computing/

**Software**
www.fujitsu.com/software/

## More information

Learn more about Fujitsu ESPRIMO P400 E85+, please contact your Fujitsu sales representative or Fujitsu Business partner, or visit our website.
www.fujitsu.com/fts/ESPRIMO

## Fujitsu green policy innovation

Fujitsu Green Policy Innovation is our worldwide project for reducing burdens on the environment. Using our global know-how, we aim to resolve issues of environmental energy efficiency through IT. Please find further information at http://www.fujitsu.com/global/about/environment/

## Copyrights

All rights reserved, including intellectual property rights. Changes to technical data reserved. Delivery subject to availability. Any liability that the data and illustrations are complete, actual or correct is excluded. Designations may be trademarks and/or copyrights of the respective manufacturer, the use of which by third parties for their own purposes may infringe the rights of such owner.
For further information see www.fujitsu.com/terms
Copyright © Fujitsu Technology Solutions

## Disclaimer

Technical data are subject to modification and delivery subject to availability. Any liability that the data and illustrations are complete, actual or correct is excluded. Designations may be trademarks and/or copyrights of the respective manufacturer, the use of which by third parties for their own purposes may infringe the rights of such owner.

Contact
FUJITSU Technology Solutions
Website: www.fujitsu.com/fts
2012-09-27 CE-EN

All rights reserved, including intellectual property rights. Changes to technical data reserved. Delivery subject to availability. Any liability that the data and illustrations are complete, actual or correct is excluded. Designations may be trademarks and/or copyrights of the respective manufacturer, the use of which by third parties for their own purposes may infringe the rights of such owner.
For further information see www.fujitsu.com/terms
Copyright © Fujitsu Technology Solutions